

PATENT ABSTRACTS OF JAPAN

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(54) FOSSIL FUEL REFORMING EQUIPMENT BY UTILIZING SOLAR HEAT

(57)Abstract:

PURPOSE: To obtain the title reforming equipment capable of reforming a fossil fuel by solar heat and reduced in consumption of fossil fuel accompanying the reforming by arranging a reacting tube constituted so as to pass fossil fuel through the inner catalyst layer in the focus position of a reflecting mirror for collecting solar heat.

CONSTITUTION: Light is collected in a reacting tube 3 installed on the front face of a reflecting mirror 2 by the reflecting mirror 2 arranged so as to be able to change the direction by automatic tracking equipment 4 so as to always have optimum inclination to the direction and height of sun in the solar light 1. On the other hand, the reacting tube 3 is installed in the focus part of a reflecting mirror 2 and an inner tube 8 is inserted in the reaction tube so as to be effectively able to utilize solar heat and a catalyst 5 for reforming (or cracking) is packed into a circular part. Then a raw material gas (mixed gas of fossil fuel and steam) 6 for reforming is introduced into a catalyst layer 5 and reformed into a reforming gas 7 consisting of H₂ and CO in the inside of the catalyst layer 5. Then the reformed gas 7 is reversed after reaction and passed through the inside of the inner tube 8 installed in the reacting tube 3 and heat is recovered in the catalyst layer part and taken out of the reacting tube 3.

